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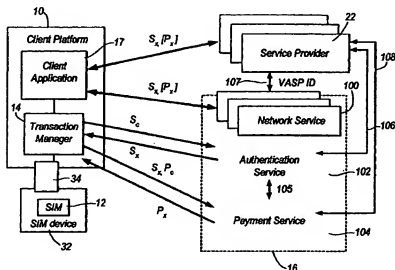
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[Continued on next page]

- (54) Title:** FACILITATING AND AUTHENTICATING TRANSACTIONS



- (57) **Abstract:** A computer, such as a Windows-based PC (10), has associated with it a Subscriber Identity Module (or SIM) (12), such as of the type used in a GSM cellular telephone system. The SIM (12) can be authenticated by the telephone network (16), in the same way as for authenticating SIMs of telephone handset users in the network, and can in this way authenticate the user of the PC (10) or the PC (10) itself. Such authentication can, for example, permit use of the PC (10) in relation to a particular application (22) which is released to the PC (10) after the authentication is satisfactorily completed. The application may be released to the PC (10) by a third party after and in response to the satisfactory completion of the authentication process. A charge for the session can be debited to the user by the telecommunications network and then passed on to the third party.



SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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## INTERNATIONAL SEARCH REPORT

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## A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

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Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 590 197 A (CHEN JAMES F ET AL) 31 December 1996 (1996-12-31) the whole document ---	1-38
X	EP 1 229 476 A (SONY COMP ENTERTAINMENT AMERIC) 7 August 2002 (2002-08-07) column 6, line 29 -column 10, line 16; claims 32,48; figure 1 ---	1-38
X	US 5 689 565 A (SPELMAN JEFFREY F ET AL) 18 November 1997 (1997-11-18) column 26, line 13 -column 26, line 55; figures 1,2 column 5, line 20 -column 6, line 35 --- -/-	1-38



Further documents are listed in the continuation of box C.



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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 022 638 A (IBM) 26 July 2000 (2000-07-26) page 4, paragraph 17 -page 6, paragraph 25; claims 8,23; figure 1 ---	1-38
X	WO 01 50429 A (AMERICAN EXPRESS TRAVEL RELATE) 12 July 2001 (2001-07-12) page 9, paragraph 3 -page 10, paragraph 3; claim 12; figures 1,2 ---	1-38
X	FR 2 793 903 A (TELEDIFFUSION FSE) 24 November 2000 (2000-11-24) page 31, line 25 -page 33, line 10; claim 1; figure 4 ---	1-5, 18-20
A	US 6 449 651 B1 (DORFMAN ALEXANDER ET AL) 10 September 2002 (2002-09-10) column 4, line 65 -column 7, line 52; figures 1,2 ---	
Y	EP 1 223 524 A (AUTHENTURE INC) 17 July 2002 (2002-07-17) column 10, line 54 -column 13, line 18; claims 5,18 column 22, line 40 -column 24, line 37 ---	1-38
Y	US 2002/129250 A1 (KIMURA AKIRA) 12 September 2002 (2002-09-12) page 2, paragraph 19 -page 4, paragraph 49; claims 14,16,46; figure 6 ---	1-38
A	FR 2 749 424 A (CKD SA) 5 December 1997 (1997-12-05) the whole document ---	1-5
A	KEUL M: "DONGLES: HARDWARE SCHUTZT SOFTWARE" ELEKTRONIK, FRANZIS VERLAG GMBH. MUNCHEN, DE, vol. 39, no. 10, 11 May 1990 (1990-05-11), pages 82-84,86, XP000117036 ISSN: 0013-5658 page 82 -page 84 ---	18,26
X	EP 0 715 242 A (NIPPON TELEGRAPH & TELEPHONE) 5 June 1996 (1996-06-05) the whole document -----	1-38

## INTERNATIONAL SEARCH REPORT

 Inter-Application No  
 PCT/83/04390

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5590197	A	31-12-1996	NONE	
EP 1229476	A	07-08-2002	US 2002104019 A1 CN 1371057 A EP 1229476 A2 JP 2002314529 A	01-08-2002 25-09-2002 07-08-2002 25-10-2002
US 5689565	A	18-11-1997	US RE38070 E1	08-04-2003
EP 1022638	A	26-07-2000	EP 1022638 A2 JP 2000206876 A KR 2000057713 A TW 449991 B	26-07-2000 28-07-2000 25-09-2000 11-08-2001
WO 0150429	A	12-07-2001	AU 3086101 A WO 0150429 A1 US 2001037312 A1	16-07-2001 12-07-2001 01-11-2001
FR 2793903	A	24-11-2000	FR 2793903 A1	24-11-2000
US 6449651	B1	10-09-2002	NONE	
EP 1223524	A	17-07-2002	AU 765797 B2 AU 8364701 A CA 2359651 A1 CN 1357850 A EP 1223524 A2 JP 2002245243 A NZ 515201 A	02-10-2003 09-05-2002 03-05-2002 10-07-2002 17-07-2002 30-08-2002 29-04-2003
US 2002129250	A1	12-09-2002	JP 2002261755 A	13-09-2002
FR 2749424	A	05-12-1997	FR 2749424 A1 EP 0951703 A1 WO 9746986 A1	05-12-1997 27-10-1999 11-12-1997
EP 0715242	A	05-06-1996	JP 3327435 B2 JP 8160855 A JP 3458979 B2 JP 8160856 A DE 69529801 D1 DE 69529801 T2 EP 0715242 A1 US 5701343 A	24-09-2002 21-06-1996 20-10-2003 21-06-1996 10-04-2003 20-11-2003 05-06-1996 23-12-1997